‡Fermilab Today

Monday, March 13, 2006

Calendar

Monday, March 13

2:30 p.m. Particle Astrophysics Seminar

- Curia II

Speaker: P. Mannheim, University of

Connecticut

Title: Dark Matter and Dark Energy 3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

THERE WILL BE NO ALL

EXPERIMENTERS' MEETING THIS

WEEK

Tuesday, March 14

11:00 a.m. Academic Lecture Series - Curia II

Speaker: R. Plunkett, Fermilab

Title: Exploring the New World of

Neutrino Physics - Lecture 2

3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4:00 p.m. Accelerator Physics and

Technology Seminar - 1 West

Speaker: S. Lackey, Fermilab

Title: ACNET vs. EPICS at Fermilab

Weather



Chance of Snow/Rain 49%25%

Extended Forecast

Weather at Fermilab

Current Security Status

Secon Level 3

Wilson Hall Cafe

After 40 Years of Service, Jolly Green Giant May Retire



Named after the Green Giant vegetable icon, Fermilab's 40-year-old Jolly Green Giant magnet may soon be dismantled.

In biology, there is a loose rule of thumb that says the bigger an organism, the longer its life will be. If Fermilab's "Jolly Green Giant" is any indication, the rule may also apply to equipment in highenergy physics. The Jolly Green Giant is a 250-ton magnet, named for its size and bright green color, that may finally be retiring after a 40-year career steering particles in HEP experiments. A few weeks ago, two of JGG's four pancakeshaped coils shorted and started leaking water. "The magnet is not dead yet, but badly wounded," said Leon Beverly, of the Particle Physics Division. In magnetyears, 40 is really old. After performing in four different experiments, and getting a variety of patch jobs and face-lifts, the magnet has outlived the US industrial base that created it.

The JGG magnet was born at the Cambridge Electron Accelerator at

Safety Tip of the Week

Crosswalks



Marked crosswalks are a great safety concept: paint the road and pedestrians have a safe place to cross.

Unfortunately, this kind of traffic control depends on the active participation of vehicle operators (to yield the right-of-way) as well as pedestrians (to use the crosswalk). Let's face it, crosswalks do not always provide the shortest walking distance nor do they guarantee safety. A few weeks ago, a Computing Division employee was nearly struck in a crosswalk while crossing Road B to the FCC satellite parking lot. The driver apparently failed to notice the employee or the marked crosswalk. Fortunately, no one was hurt.

Use crosswalks - There are 15 marked crosswalks on the Fermilab site: most are around Wilson Hall and along Road D. According to Illinois Law, vehicle operators are required to yield to pedestrians in crosswalks. Alternatively, pedestrians crossing at other locations are required to yield to vehicles, (see Illinois Vehicle Code)

Pay attention at crosswalks - Drivers

Monday, March 13

- -Wisconsin Cheese
- -Corned Beef Reuben
- -Stuffed Chicken Breast
- -Shepherd's Pie
- -Turkey Craisins Wrap
- -Meatlover's Pizza
- -Pacific Rim Rice Bowl

The Wilson Hall Cafe accepts Visa, Master Card, Discover and American Express.

Wilson Hall Cafe Menu

Chez Leon

Wednesday, March 15 Lunch

- -Pork Satay w/Peanut Sauce & Condiments
- -Steamed Jasmine Rice
- -Pineapple Coconut Coupe

Thursday, March 16 Dinner

- -Skewered Shrimp
- -Grilled Lamb Chops
- -Fennell & Cannelli Bean Puree
- -Green Beans w/Julienne Red Peppers
- -Chocolate Fondue w/Fresh Fruit

Chez Leon Menu

Call x4512 to make your reservation.

Search

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Info

Harvard. A famous engineer named Dave Jacobus designed it in 1964 to guide electrons in the Strauch-Walker experiment, which studied the photoproduction of electron pairs involving a large momentum transfer. After 20 years of steering electrons at Harvard, the JGG was broken into pieces and transported to Brookhaven National Laboratory for the E776 experiment. Ed Hartouni, a University of Massachusetts physicist working at BNL at the time, remembers how the supervising engineer turned the rusty giant into a spectrometer magnet for the experiment. "There were a number of very cool rigging tasks that Al had to accomplish. The best was getting the coils onto the steel without damage," he said. "He set the magnet out on a grassy field and packed the place where the lower coils would rest with dry ice, and set the coils down on it. As the ice evaporated, it settled them gently into place." Even then, 20 years ago, Hartouni remembers a sign affixed to the magnet that read: "Congratulations, you are the proud owner of an historic relic."

In 1988, the BNL experiment was transferred to Fermilab's Lab-G, and the Jolly Green Giant came with it. Fermilab physicist Dave Christian remembers when the magnet first arrived. "We made the entire floor of thick reinforced concrete, like a very high-quality U.S. interstate highway, so we could put the magnet anywhere in the lab," he said. After helping the E690 experiment study proton-proton diffraction in Lab G, the magnet moved to Fermilab's MIPP experiment in 2002. "Now we use JGG to bend the particles we've produced in collisions so we can track them," said Rajendran Raja, MIPP spokesperson. Raja admitted that the magnet would be

should familiarize themselves with
Fermilab's marked locations and be alert
for people trying to cross the street.
Pedestrians should remain alert any time
they share a surface used by vehicles.

See and be seen - Because walking is such a routine part of everyday life, many people do not consider the safety aspects of walking. Pedestrians need to keep in mind that they need to be seen to be avoided. For example, consider wearing light colors or bright clothing, especially in low-light conditions.

Safety Tip of the Week Archive

Accelerator Update

March 3 - 10

Linac resumed operation on March 9.
 Read the Current Accelerator Update
 Read the Early Bird Report
 View the Tevatron Luminosity Charts

In the News

Forbes, March issue, 2006: Big Bang

It will be the world's largest machine. It could explain the origins of the universe. But first a team of engineers has the gargantuan logistic challenge of putting the Large Hadron Collider together

For physicists the large Hadron Collider will be the ultimate blackboard. This particle accelerator will have 1,700 enormous superconducting magnets stretched along a 17-mile-long underground tunnel spanning the French-Swiss border. The magnets, weighing up to 37 tons each, will accelerate two beams of protons in opposite directions

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expensive to fix, and possibly impractical, but he isn't quite ready to say goodbye.

"We can't quite write JGG off as dead,"
he said. "We just don't know yet."

—Siri Steiner

Click <u>here</u> to see a video of the JGG magnet being installed at MIPP (must have Quicktime player).



Above: One of the magnet's four pancakeshaped coils. This coil shorted soon after the JGG arrived at the MIPP experiment. It was shipped to California and repaired at a cost of 150 thousand dollars. Two of the four coils are currently broken. (Click image for larger version.)



Above: The Jolly Green Giant was installed at MIPP in 2002. (Click image for larger version.)

to nearly the speed of light. These protons will collide in four giant particle detectors, the largest of which will occupy an underground cavern as big as Notre Dame Cathedral, producing a spray of particles that scientists hope will unlock profound secrets about the origins of the universe and the nature of matter itself.

Read More

Announcements

Found: Red Gloves

A pair of red children's gloves was found at the Wednesday evening Delta Dart night. Please contact Jim Zagel at 4076 or e-mail zagel@fnal.gov.

Blackhawks Hockey Discounts

Enjoy the thrills of Blackhawks Hockey with your family & co-workers at 50 percent off regular ticket prices! Order your 300-Level tickets now for \$20, \$12.50 or \$7.50! Tickets are normally \$40, \$25.00, and \$15.00. Tickets available for the following games: March 15 at 7:30 p.m., March 29 at 7:30 p.m., and April 16 at 6:00 p.m. Order forms are available in the Recreation Office or at the recreation website.

Rocketry Meeting

The Fermilab Association of Rocketry is having their monthly club meeting on March 15, 2006 at 5pm in the Users Center TV room. We are always looking for new members; anyone interested in model rocketry is welcome. Check our website for more details.

Upcoming Activities

Fermi National Accelerator Laboratory 🛛 🚳 Office of Science/U.S. Department of Energy Managed by Universities Research Association, Inc.